J. C. SUNDERLAND.

CORNER PLATE FOR CONCRETE PIERS, &c.

APPLICATION FILED FEB. 15, 1908.

916,378. Patented Mar. 23, 1909.

Fig. 1.

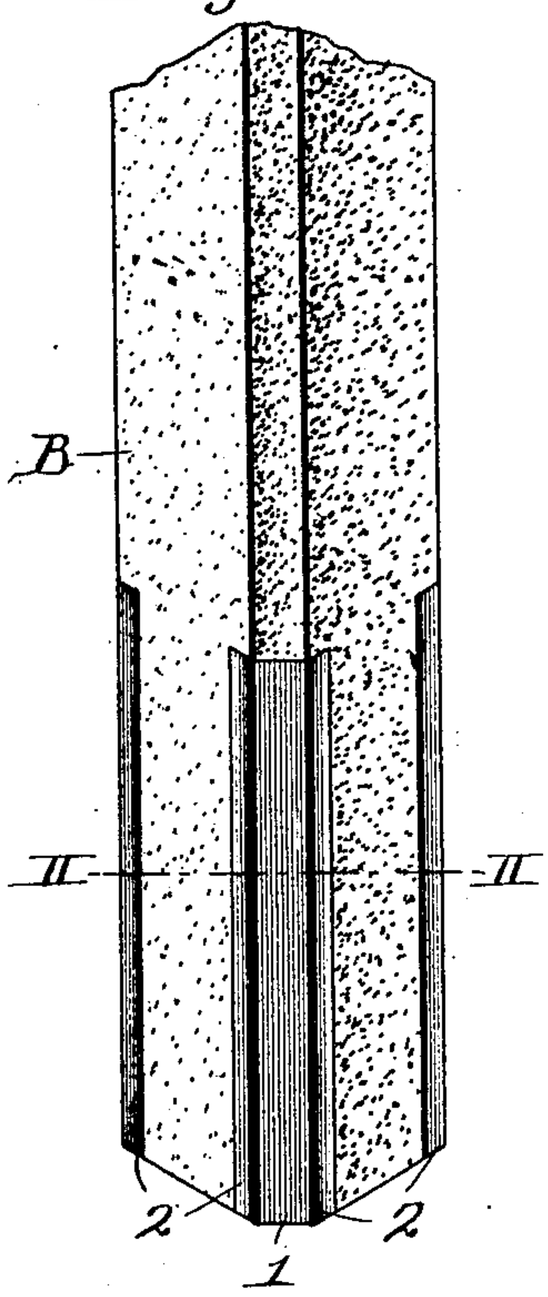
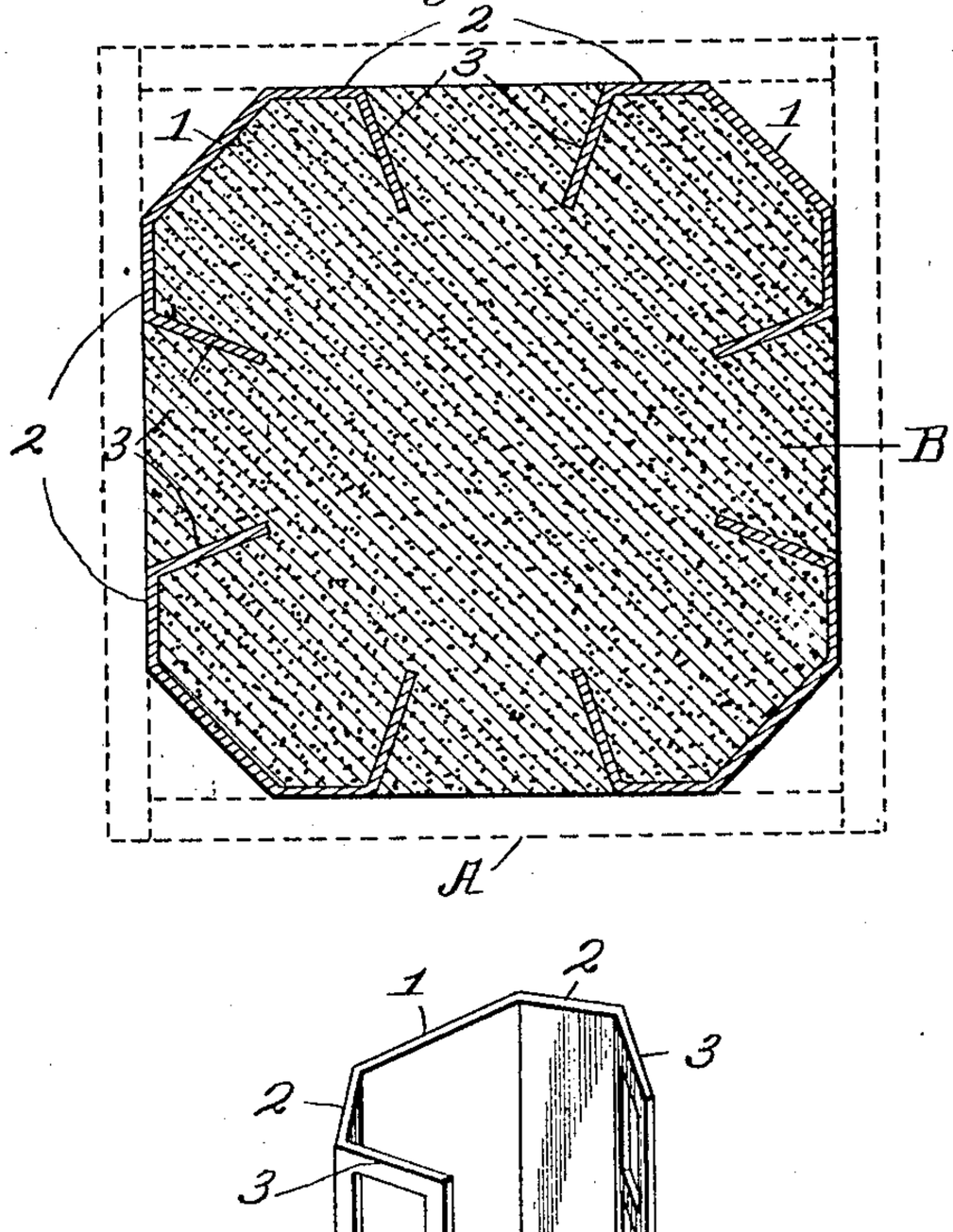


Fig. 2.



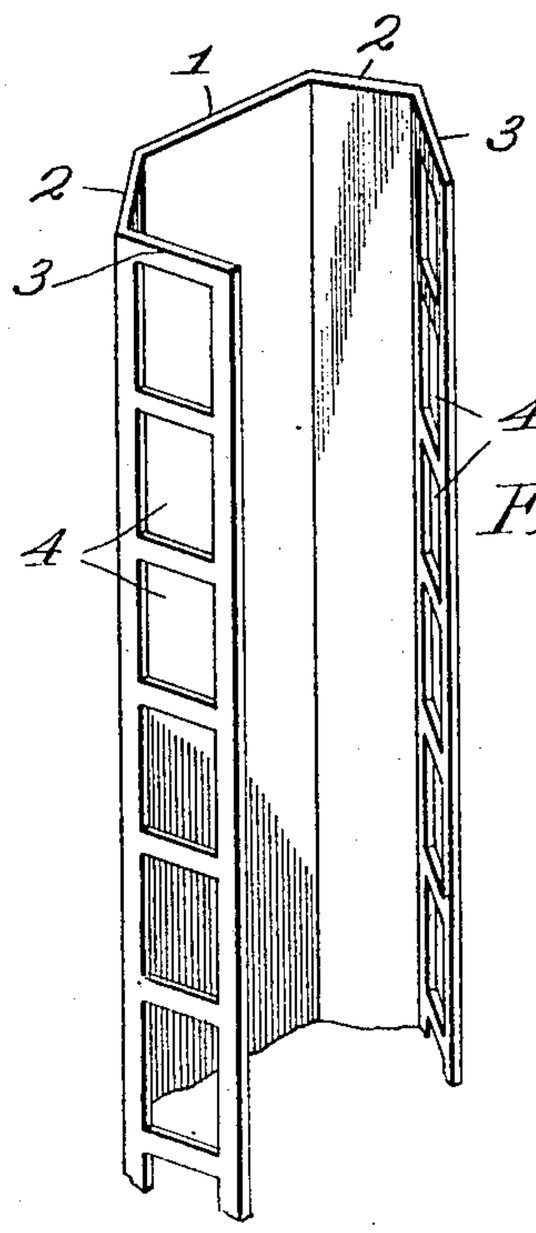
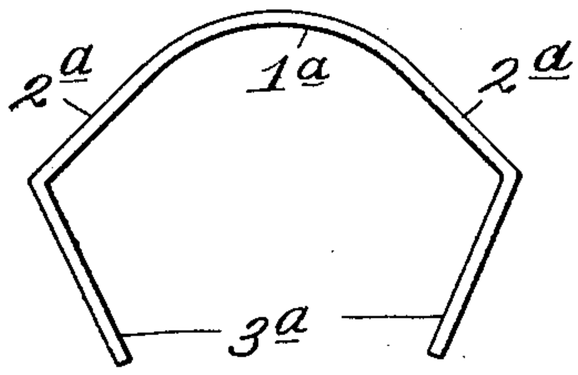


Fig. 3.

Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES C. SUNDERLAND, OF KANSAS CITY, MISSOURI.

CORNER-PLATE FOR CONCRETE PIERS, &c.

No. 916,378. Specification of Letters Patent. Patented March 23, 1909.

Application filed February 15, 1908. Serial No. 416,004.

To all whom it may concern:

Be it known that I, JAMES C. SUNDERLAND, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Corner-Plates for Concrete Piers, &c., of which the following is a specification.

My invention relates to improvements in corner-plates for protecting the corners of columns, piers, and pilasters composed of concrete or other plastic material; and one of my objects is to provide a corner-plate which may be reliably held in place without the aid of anchors, bolts, or other extraneous fastening devices.

In order that the invention may be fully understood, reference will now be made to the accompanying drawing, in which:

Figure 1 represents a broken perspective view of a pier, the corners of which are protected by my corner-plates, which extend to any desired height on said pier. Fig. 2 is an enlarged cross section of the same on line II—II of Fig. 1. Fig. 3 is an enlarged broken perspective of one of the corner-plates. Fig. 4 is a plan view of a modified form of corner-plate.

In carrying out the invention, I prefer to employ sheet-metal strips bent into the desired form, although plates cast in the proper form may be used. Each plate consists of a corner portion 1, from which a pair of wings 2 extend at an angle to each other approximating ninety degrees, and a pair of flanges 3 extending inwardly from the wings at an obtuse angle to the latter.

In the modified form shown in Fig. 4, the plate consists of a rounded corner portion 1^a, a pair of wings 2^a communicating with said rounded portion, and a pair of flanges 3^a communicating with the wings.

In practice the corner-plates are placed in position in the corners of a mold A shown in dotted lines, Fig. 2, in which the pier B is formed. Then when the plastic material for forming said pier is poured into the mold, a portion of it will flow through the openings 4, and thus securely hold the corner-plates in position after the plastic material has set.

I am aware that heavy angle-irons have been employed for protecting the corners of concrete piers, but they are not satisfactory for the reason that they are inconvenient to handle, and have to be anchored into the plastic material by bolts, or other extraneous fastening devices, which add materially to the cost of construction. Furthermore, the heads of these fastening devices usually engage the outer surface of the angle-irons and give the work an unfinished appearance. An offset is also left between the upper ends of the angle-irons and the corners of the piers, the corners of which latter are generally chamfered to their upper ends to prevent said corners from chipping off.

My devices require no extraneous fastening devices, as they are reliably held in place by the material which flows into openings 4, and they give a finished appearance to the pier as all of their exposed portions are flush therewith.

Having thus described my invention, what I claim is:

1. In combination with a pier or the like composed of a body of plastic material, corner plates for protecting the corners thereof, each plate consisting of a corner part, a pair of wings each lying in the same straight plane throughout extended from the ends of said corner part and lying flush with the adjacent sides of said pier, said wings being of comparatively considerable width so as to extend along adjacent sides of the pier and being disposed at right angles to each other, and a flange extended inwardly from the end of each of said wings, said flanges being disposed at an obtuse angle to said wings and being of considerable width so as to extend for a distance into the body of the pier or the like, said flanges each being formed with a series of openings whereby the material on opposite sides of the flanges extends through said openings and serves to lock the flanges against outward movement.

2. A pier composed of a body of plastic material and a plurality of corner elements, each of said elements embodying a corner part, wings extended therefrom and embedded in the body so as to lie flush with its outer faces, and flanges comparatively of considerable width which form anchoring means for said element and strengthening means for the body of plastic material, said

flanges being related to the center of said pier body so as to radiate therefrom, the center or core of the body being surrounded by said flanges the two flanges of each corner element converging toward one another, and the adjacent flanges of adjacent corner elements converging toward one another.

In testimony whereof I affix my signature, in the presence of two witnesses.

JAMES C. SUNDERLAND.

Witnesses:
F. G. FISCHER,
M. COX.